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ماضرة [7]

* Data are facts that can be measured

* ERD is a data modelling

DB → SQL ← ERD only used for SQL Database
 ↓
 NoSQL

* Relational Database Consists of:-

- * Entity
- * Attributes
- * relationships
- * Constraints

Entities can be:
① attributive entity
② Associative entity
③ weak entity

* entities that inherit from a parent entity are attributive

* entities that cannot exist without another entity are weak entity.

* entities that are dependent on each other are associative.

* if entity isn't one of the three above then it is a fundamental entity.

* entity is a major item that have attributes.

* Attributes can be single value or multivalued
Attribute

* Attribute can be simple or composite attribute

- Attribute can be composite and multivalued.

* Constraints, things that are mandatory are considered constraints

- There is no database without constraints.

Cardinality is the minimum or maximum number of instances for a relationship.

* relationships can have attributes.

Referential integrity means attributes with parents.

You cannot modify child without the parent.

- Enhanced ERD $\rightarrow$ EED

Traditional ERD does not allow overlapping, inheritance.

overlapping: item in more than one entity.

inheritance: have childs of parent entities.

- ~~attributive~~ entity can only be shown in EED

* inheritance $\begin{cases} \rightarrow \text{Generalization} \\ \rightarrow \text{Specialization} \end{cases}$